Installation Instructions

002-0556-00 M9 Protective Drying Retrofit Kit

Kit Components

The 002-0556-00 Retrofit Kit contains the following components:

Part Number	Description	Qty
003-0856-00	M9 Retrofit Instruction	1
003-0857-00	M9 Retrofit I/O Manual	1
014-0183-02	Male Connector 3/8 x 1/4 MPT	1
014-0191-00	1/4" Compression Sleeve	2
014-0191-01	3/8" Compression Sleeve	1
014-0192-00	1/4" Compression Nut	2
014-0192-01	3/8" Compression Nut	1
014-0234-00	1/4" Male Branch Tee	1
014-0280-00	Brass Check Valve 1/4 MPT	1
014-0281-00	Barb Fitting 1/4 ID x 1/4 FPT	2
014-0282-01	Barb Fitting 3/16 ID x 1/4 MPT	1
014-0284-00	Dry Solenoid Tube	1
014-0285-00	Fill Tube	1
014-0286-00	45° Elbow 1/4 MPT x 1/4 FPT	1
014-0287-00	Vent Tube	1
015-0013-02	Cable Tie	9
015-0315-00	F Term .032 x .250 22-18 AWG	2
015-1048-10	M9 Retrofit PC Board	1
015-1143-00	Air Compressor 230 V/50 HZ	1
015-1147-00	Wiring Harness	1
015-1147-01	Wiring Harness	1
029-2120-00	Dry Solenoid Manifold Assembly	1
040-0006-85	Screw - .138-32 x .5 SCKT SS	4
040-0010-108	Screw - .190-32 x .625 SS	2
041-0006-03	Nut, Hex Nylock #6-32	4
041-0010-08	Nut #10-32 ESNA	2
045-0001-87	Washer, Plain 0.203	2
050-3915-00	Compressor Mounting Bracket	1
053-0890-01	Tubing, Compressor Outlet	1
053-0891-01	Tubing, HEPA Filter Connection	1
053-0891-02	Tubing, Pressure Vessel Inlet	1
053-0892-00	HEPA Filter	1
061-0643-00	Wiring Diagram Label	1
061-0644-00	Warning Label	1
061-0646-00	M9 Australian Product Label	1
061-0647-00	Serial Number Label	1

Special Tools

The following special tools will be required to perform the installation of the retrofit kit - a Maximum Registering Thermometer, multimeter, 3/32" punch, and a pressure gauge test harness. The special tools and information on how to obtain them are listed in Table 1-2 of the M9 Service and Parts Manual (P/N 003-0603-00).

Obtain a current version of the M9 Service and Parts Manual (P/N 003-0603-00); it will be referenced frequently during the retrofit procedure:

A. Removal of Pulse Solenoid, PC Control Board, and Tubing

DANGER

Remove all power from unit before removing and covers / shrouds. Failure to do so could result in electrical shock causing serious personal injury or death.

(1) Unplug the sterilizer power cord from outlet receptacle.

(2) Unclip the drain hose and drain all water from the reservoir into a clean, suitable container.

(3) If installed, remove the optional printer.

(4) Remove top cover (Refer to para 4.2 of M9 Service and Parts manual).

(5) Remove right hand side panel (Refer to para 4.3 of M9 Service and Parts manual).

(6) Remove left hand side panel (Refer to para 4.4 of M9 Service and Parts manual).

(7) Remove back panel (Refer to para 4.5 of M9 Service and Parts manual).

(8) Remove base inspection cover (Refer to para 4.6 of M9 Service and Parts manual).

(9) Remove the control PC board (Refer to para 4.13 of M9 Service and Parts manual).

NOTE
Only steps 1 thru 3 need to be performed when removing the pulse solenoid; step 4 does not need to be performed.

(10) Remove the pulse solenoid (Refer to para 4.15 of M9 Service and Parts manual).

(11) Lay unit onto its back.

(12) Gaining access thru base inspection hole, loosen compression fittings (1, Figure 1) and disconnect tube (2) from elbows (3 and 4). Discard the compression fittings and tube (2).

(13) Remove elbow (3) from pressure vessel (5). Discard elbow (3).

(14) Raise unit back to its upright position.

(15) Loosen compression fittings (6) and disconnect tube (7) from elbow (8) and male fitting (9). ***Keep tube (7) for later use; do not discard.***

(16) Loosen compression fitting (10) and then remove tube (11), barbed fitting (12) and PCB tube (13) as an assembly from male branch tee (14). ***Keep PCB tube (13) for later use; do not discard.***

B. Installation of Retrofit Components

(1) Position dry solenoid assembly (1, Figure 2) over vent solenoid (2); then connect one end of vent tube (3) to elbow (4) with compression sleeve and compression nut.

(2) Connect one end of vent tube (3) to male branch tee (5) with compression sleeve and compression nut.

(3) Measure and cut tube (6) to length [was tube (7, Figure 1)].

(4) Connect tube (6) to male fitting (7) with compression sleeve and compression nut.

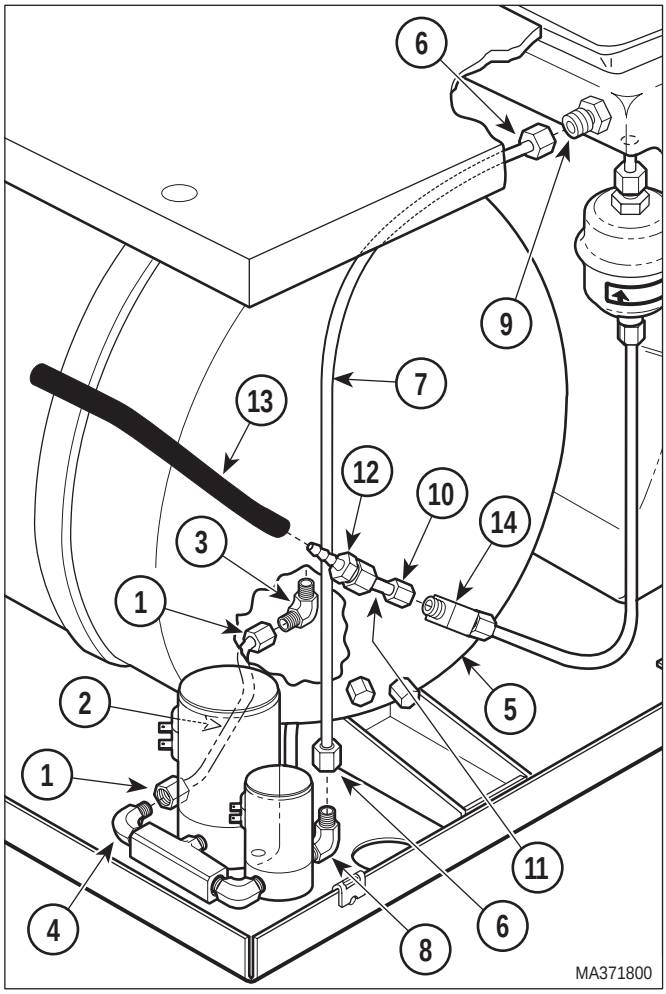

FIGURE 1. COMPONENTS REMOVAL

(5) Connect other end of tube (6) to male branch tee (5) with compression sleeve and compression nut.

(6) Position dry solenoid tube (8) between male branch tee (9) and elbow (10); then cut dry solenoid tube to length. Discard remaining length.

(7) Connect one end of dry solenoid tube (8) to male branch tee (9) with 1/4" compression sleeve and 1/4" compression nut.

(8) Connect other end of dry solenoid tube (8) to elbow (10) with 1/4" compression sleeve and 1/4" compression nut.

(9) Turn unit onto its back.

(10) Install 1/4" male branch tee (11) in pressure vessel (12) and position as shown.

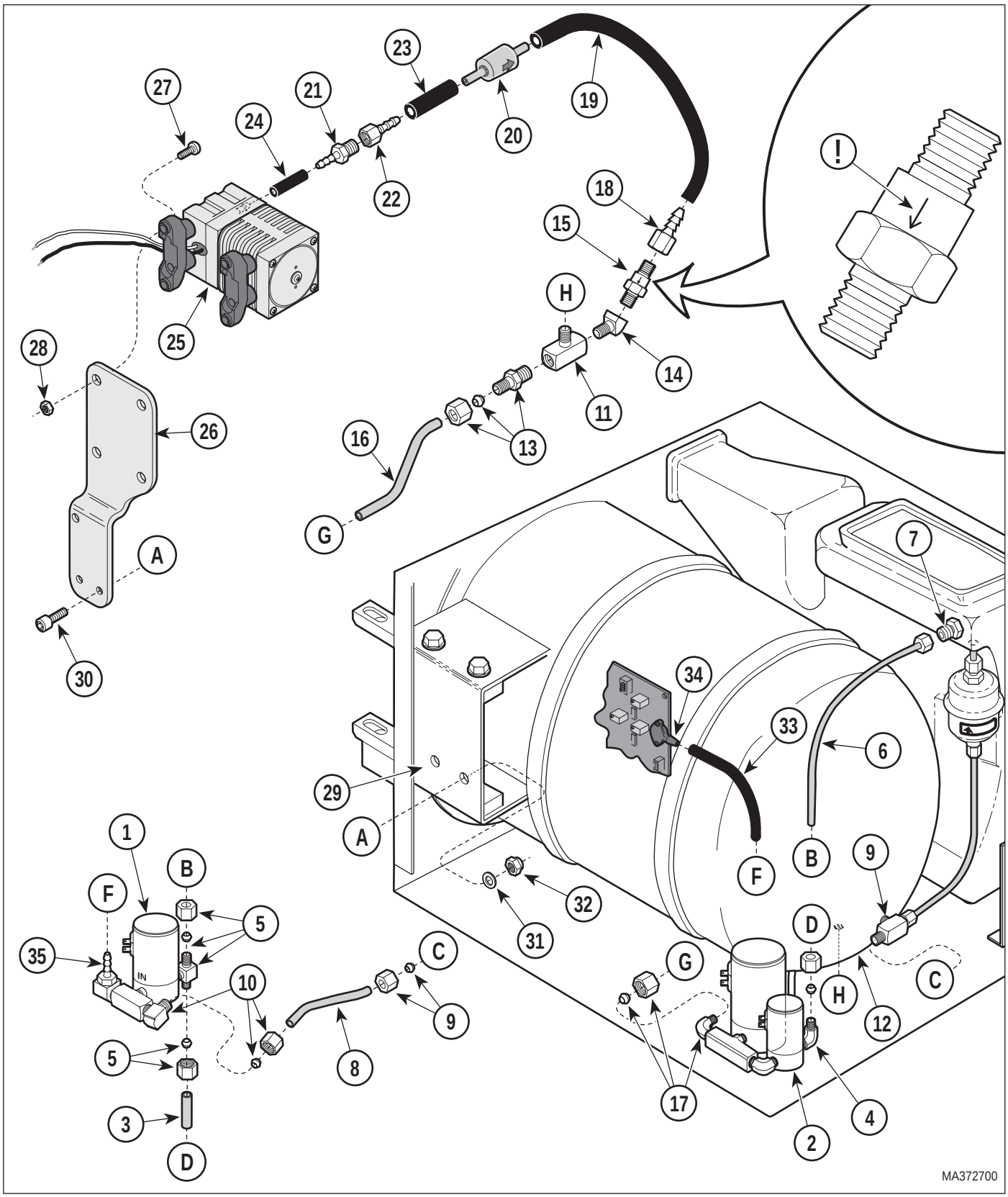

FIGURE 2. INSTALLATION OF TUBING, AIR COMPRESSOR, AND DRY SOLENOID COMPONENTS

(11) Install 3/8 x 1/4" MPT male fitting (13) and 1/4 MPT x 1/4 FPT 45° elbow (14) on male branch tee (11) and position as shown.

NOTE
The air will flow from the air compressor to the pressure vessel; therefore the directional arrow on the check valve must be pointed toward the pressure vessel.

(12) Install 1/4 MPT brass check valve (15) on 45° elbow (14), making sure the directional arrow of the check valve is pointing toward the 45° elbow (14).

(13) Connect one end of fill tube (16) to male fitting (13) with 3/8" compression sleeve and 3/8" compression nut.

(14) Connect the other end of fill tube (16) to elbow (17) with 3/8" compression sleeve and 3/8" compression nut.

(15) Install 1/4 ID x 1/4 FPT barb fitting (18) on check valve (15).

(16) Connect one end of pressure vessel inlet tubing (19) to barb fitting (18).

(17) Connect the other end of pressure vessel inlet tubing (19) to HEPA filter (20), making sure the directional arrow on the HEPA filter is pointing toward the tubing (19); away from the air compressor.

(18) Assemble 3/16 ID x 1/4" MPT barb fitting (21) to 1/4 ID x 1/4" FPT barb fitting (22).

(19) Install one end of HEPA filter connection tubing (23) to HEPA filter (20) and the other end to barb fitting (22).

(20) Install one end of compressor outlet tubing (24) on barb fitting (21).

(21) Install air compressor (25) on compressor mounting bracket (26) with four 0.138-32 x .5 screws (27) and #6-32 Nylock hex nuts (28).

(22) Install compressor mounting bracket (26) on door latch weldment (29) with two 0.190-32 x .625 SS screws (30), 0.203 plain washers (31), and #10-32 ESNA nuts (32).

(23) Connect remaining end of compressor outlet tubing (24) to barb fitting on air compressor (25).

NOTE
Step 5 does not need to be performed when installing the control PC board.

(24) Install control PC board (Refer to para 4.13 of M9 Service and Parts manual).

(25) Disconnect old PCB tube (13, Figure 1) from connector (12).

(26) Position PCB tube (33, Figure 2) [was tube 13, Figure 1) between sensor (34) on control PC board and barb fitting (35); then cut PCB tube (33) to length. Discard remaining length.

(27) Connect one end of PCB tube (33) to sensor (34) of control PC board.

(28) Connect the other end of PCB tube (33) to barb fitting (35).

(29) Secure each end of pressure vessel inlet tubing (19), HEPA filter connection tubing (23), compressor outlet tubing (24), and PCB tube (33) in place with a cable tie.

(30) Using a crimping tool, crimp one female terminal (1, Figure 3) on each air compressor wire (2).

(31) Connect one wire harness (3) to each wire (4) of control PC board.

(32) Connect longest wire of each wire harness (3) to terminals of dry solenoid (5).

(33) Connect shortest wire of each wire harness (3) to air compressor wire terminals (1).

(34) Secure wires (2 and 3) to compressor mounting bracket (6) with a cable tie, making sure the wires are not touching components of control PC board.

(35) Route wires (3) so they lay on base of unit and do not run across control PC board.

(36) Install one wiring diagram label (1, Figure 4) on right hand side panel (2), making sure old wiring diagram label is removed or covered.

(37) Install one warning label (3) on top cover (4), making sure old warning label is removed or covered.

NOTE
There will be two sets of serial numbers for the Aussie Retrofit units; the existing one and the additional one being applied in the following step. Both of the serial numbers will need to be known to correctly order parts.

(38) Install one serial number label (5) on back panel (6), making sure to locate it above the existing serial number label.

(39) Install one M9 Australian product label (7) on front panel (8).

(40) Install base inspection cover (Refer to para 4.6 of M9 Service and Parts manual).

(41) Install back panel (Refer to para 4.5 of M9 Service and Parts manual).

(42) Install left hand side panel (Refer to para 4.4 of M9 Service and Parts manual).

(43) Install top cover (Refer to para 4.2 of M9 Service and Parts manual).

(44) If removed, install optional printer.

(45) Fill reservoir with clean, distilled water.

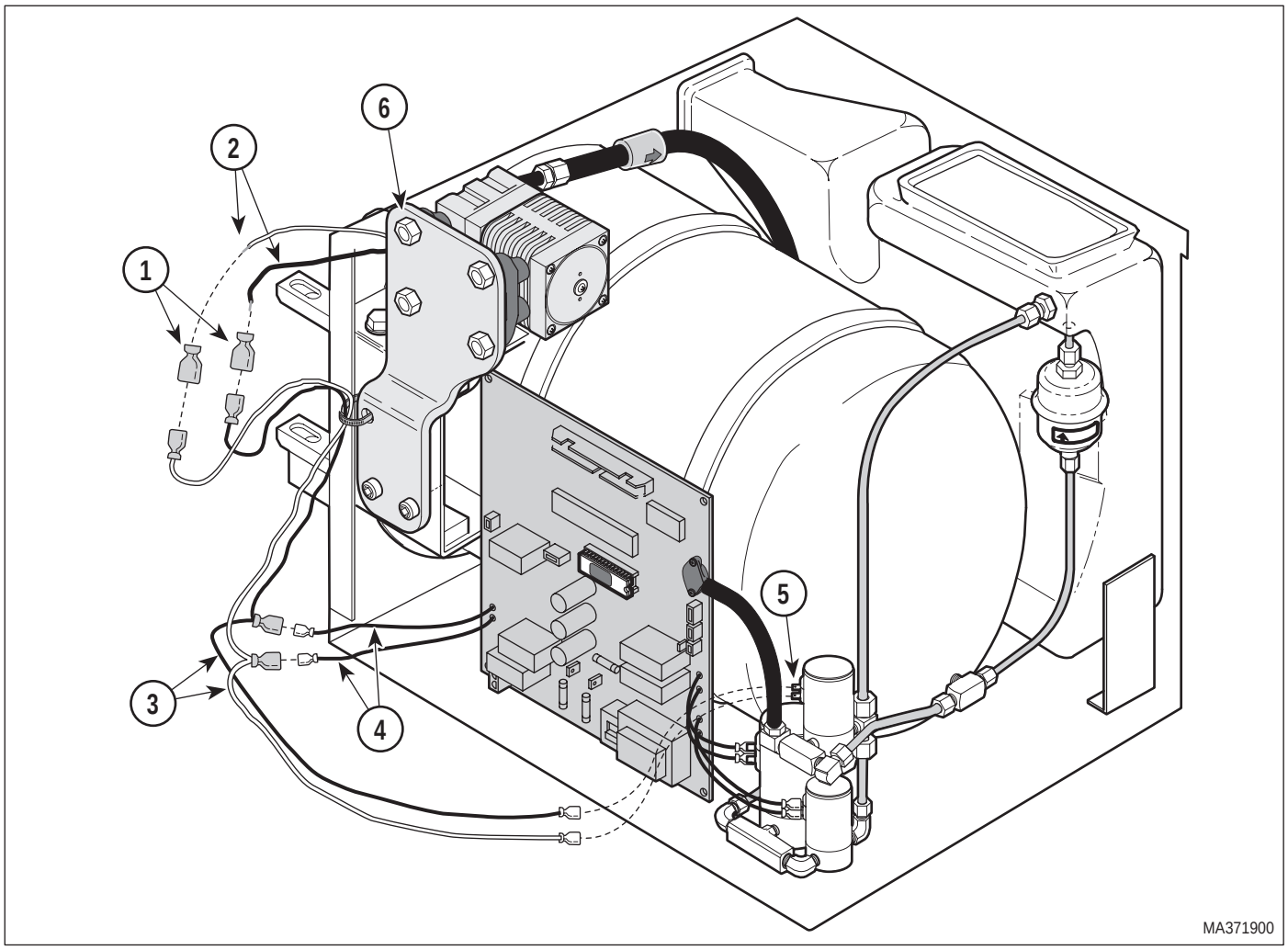

FIGURE 3. ELECTRICAL CONNECTIONS

(46) Plug sterilizer power cord into outlet receptacle.

(47) Adjust the pressure / temperature potentiometers (Refer to para 4.24 of M9 Service and Parts manual).

(48) Run an operational test to verify unit is functioning properly (Refer to para 2.1 of M9 Service and Parts manual).

(49) Install right hand side panel (Refer to para 4.3 of M9 Service and Parts manual).

(50) Discard old Installation and Operation manual and replace with new Installation and Operation manual (P/N 003-0857-00).

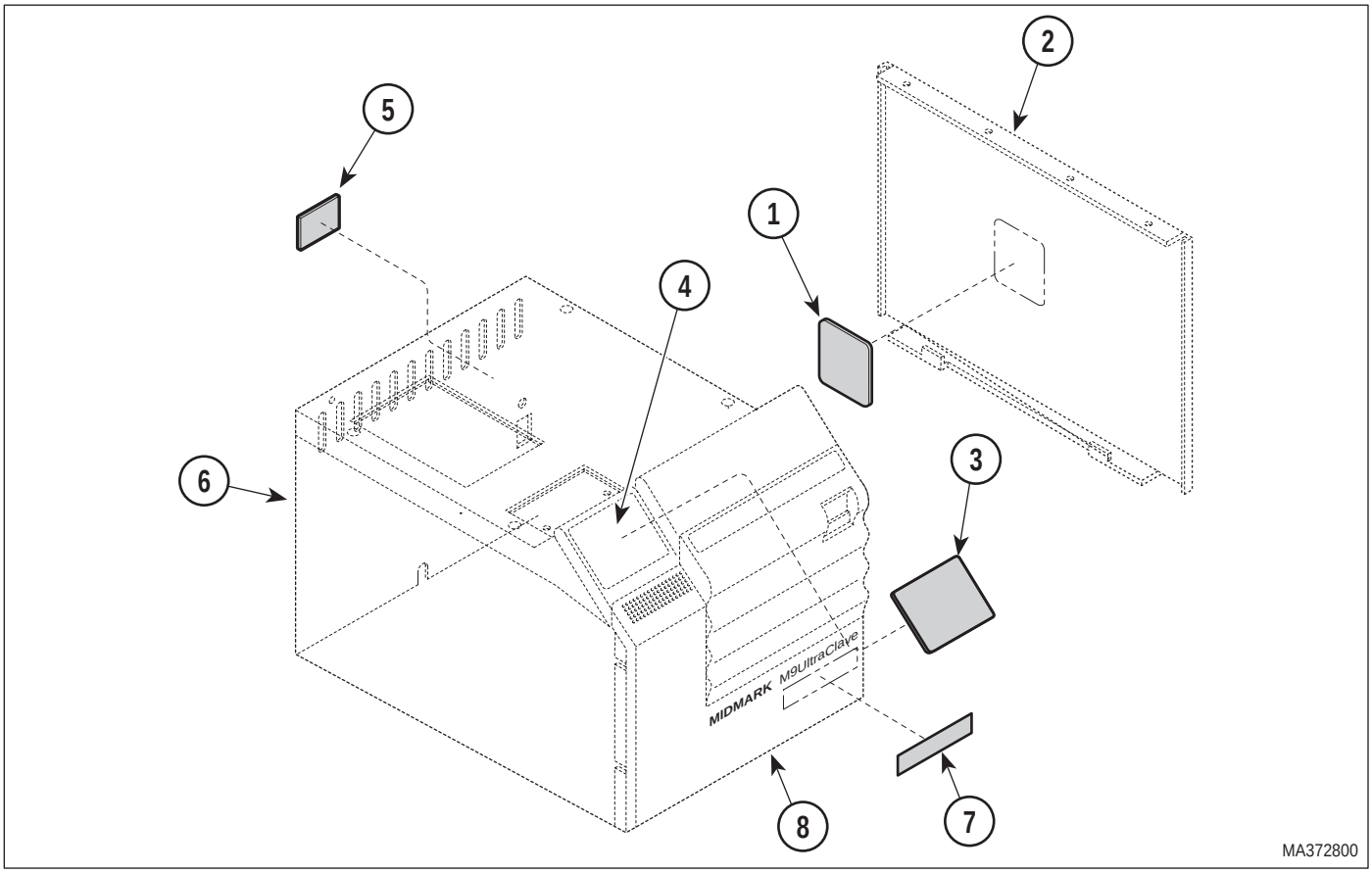

FIGURE 4. LABEL INSTALLATION

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